

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("6108497").PN.	USPAT; USOCR	OR	OFF	2005/11/17 14:04
S1	177	(703/9).CCLS.	USPAT; USOCR	OR	OFF	2005/11/17 08:33
S2	12	("20020082815" "4683759" "5226092" "5313559" "5550761" "5741980" "5960187" "6028992" "6505579" "6654697" "6758102" "6823296").PN. OR ("6941254").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/11/17 08:17
S3	28	S1 and transformation	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:15
S4	0	simulat\$5 same trnasformation same fluid\$2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:16
S5	51	simulat\$5 same transformation same fluid\$2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:16
S6	7	simulat\$5 same transformation same fluid\$2 same matrix	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:17
S7	57717	fluid and simulat\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:17
S8	6047	fluid and simulat\$5 and transformation\$2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:17
S9	238	fluid and simulat\$5 and transformation\$2 adj matrix	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:18
S10	0	fluid and simulat\$5 and transformation\$2 adj matrix and pengrobinson	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:19
S11	2	fluid and simulat\$5 and transformation\$2 adj matrix and peng-Robinson	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/17 09:23

S12	6	((("4187548") or ("5774381") or ("5826065") or ("6094619") or ("6212488") or ("6336085"))).PN.	USPAT; USOCR	OR	OFF	2005/11/17 09:25
-----	---	--	-----------------	----	-----	------------------



Welcome United States Patent and Trademark Office

☐ [Search Session History](#)[BROWSE](#)[SEARCH](#)[IEEE XPLORE GUIDE](#)

Edit an existing query or
compose a new query in the
Search Query Display.

Thu, 17 Nov 2005, 2:01:30 PM EST

Search Query Display

Select a search number (#)
to:

- Add a query to the Search Query Display
- Combine search queries using AND, OR, or NOT
- Delete a search
- Run a search

Recent Search Queries

- [#1](#) ((simulation and reservoir)<in>metadata)
- [#2](#) ((simulation and reservoir)<in>metadata)
- [#3](#) ((simulation and reservoir)<in>metadata) and eos
- [#4](#) ((simulation and reservoir)<in>metadata) and transformation
- [#5](#) ((simulation and reservoir)<in>metadata)
- [#6](#) ((simulation and reservoir)<in>metadata)

Indexed by
 Inspec

[Help](#) [Contact Us](#) [Privacy & :](#)

© Copyright 2005 IEEE --

[About Us](#)
[Newsroom](#)
[Advisory Board](#)
[Submit Web Site](#)
[Search Tips](#)
[Contact Us](#)
[Basic Search](#)
[Advanced Search](#) [Search Preferences](#)

☒ Journal sources ☒ Preferred Web sources ☒ Other Web sources ☐ Exact phrase

 Searched for:: :All of the words:**simulation** AND **reservoir** AND **transformation**

 Found:: :**2,523 total** | **1,253 journal results** | **3 preferred web results** | **1,267 other web results**

 Sort by:: :**relevance** | [date](#)

- ☐ 1. [Advanced Techniques for Reservoir Simulation and](#) [PDF-285K]
 Nov 2001
 Advanced Techniques for **Reservoir Simulation** and Modeling of Non-Conventional...wells are presented. New **reservoir simulation** techniques, able to provide...**reservoir** engineering and **reservoir simulation** tools used to model non-conventional...
[more hits from](#) [<http://ekofisk.stanford.edu/horiz/reports/15213RO1.pdf>]
[similar results](#)
- ☐ 2. [ECLIPSE Reference Manual](#) [PDF-3MB]
 Sep 2000
 ...purpose. Patent Information 0 Schlumberger ECLIPSE **reservoir simulation** software is protected by US Patent 6,018,497 and...3-120 COMPFLASH Flash **transformation** ratios for well connections...
[more hits from](#) [<http://www.pe.utexas.edu/Dept/Academic/Courses/F2000/P...>]
[similar results](#)
- ☐ 3. [Microsoft Word - Engineering.doc](#) [PDF-105K]
 Nov 2001
 ...geostatistical 3D **reservoir** models. Flow **simulations** were performed...characterization of **reservoirs** with abundant...basis for flow **simulations**. Cornerpoint...application to other **reservoir** imaging methods...project. Designed **simulation** studies have...
[more hits from](#) [<http://www.pete.lsu.edu/courses/Research/White/Frontie...>]
[similar results](#)
- ☐ 4. [\[PFP#880471759\]](#) [PDF-2MB]
 May 1999
 ...runoff, channel routing, **reservoir** routing, diversion...6 2.5 **Reservoir** Component...7 2.8 Hydrograph **Transformation**...7 3 Rainfall-Runoff **Simulation**...43 3.6.6 Level-Pool **Reservoir** Routing...
[\[http://lawr.ucdavis.edu/classes/hyd143/hecl.pdf\]](http://lawr.ucdavis.edu/classes/hyd143/hecl.pdf)
[similar results](#)

 Refine your search using these key words found in the results:
[biodegradation](#)
[board of trustees](#)
[catchment](#)
[elliptic](#)
[facies](#)
[hydrograph](#)
[hydrologic](#)
[inflow](#)
[object-oriented](#)
[porous](#)
[reactive transport](#)
[reservoir simulation](#)
[seismic data](#)
[sorption](#)
[two-dimensional](#)
[unit hydrograph](#)

Or refine using:

Dialog DataStar

[options](#)
[logout](#)
[feedback](#)
[help](#)
[databases](#)
[easy search](#)

Advanced Search:

INSPEC - 1969 to date (INZZ)

[limit](#)

Search history:

No.	Database	Search term	Info added since	Results	
1	INZZ	Moeckel-G\$	unrestricted	5	show titles
2	INZZ	Schmitt-D\$	unrestricted	425	show titles
3	INZZ	2 AND reservoir	unrestricted	1	show titles
4	INZZ	2 AND transform	unrestricted	4	show titles
5	INZZ	simulation AND reservoir	unrestricted	954	show titles
6	INZZ	5 AND transformation	unrestricted	5	show titles

[hide](#) | [delete all search steps...](#) | [delete individual search steps...](#)

Enter your search term(s): [Search tips](#) ☐ Thesaurus mapping



Information added since: or: (YYYYMMDD)

[search](#)

Select special search terms from the following list(s):

- ☒ Publication year
- ☒ Classification codes A: Physics, 0-1
- ☒ Classification codes A: Physics, 2-3
- ☒ Classification codes A: Physics, 4-5
- ☒ Classification codes A: Physics, 6
- ☒ Classification codes A: Physics, 7
- ☒ Classification codes A: Physics, 8
- ☒ Classification codes A: Physics, 9
- ☒ Classification codes B: Electrical & Electronics, 0-5
- ☒ Classification codes B: Electrical & Electronics, 6-9
- ☒ Classification codes C: Computer & Control

Dial g DataStar

options

logout

feedback

help

databases

search
page

titles

Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

save

locally as: PDF document



search strategy: do not include the search strategy

previous
documentsnext
documents

order

USPTO Full Text Retrieval Options

☒ document 2 of 5 [Order Document](#)
INSPEC - 1969 to date (INZZ)
Accession number & update

6136683, A1999-04-9240-006, C1999-02-7340-062; 19990101.

Title
Numerical **simulation** of ground water mounding and its verification by Hele-Shaw model.
Author(s)
[Tswn-Syau-Tsay](#); [Hoopes-J-A](#).
Author affiliation

Agricultural Eng Res Center, Chung-Li, Taiwan.

Source

Computers-Geosciences (UK), vol.24, no.10, p.979-90, Dec. 1998. , Published: Elsevier.

CODEN

CGEODT.

ISSN

ISSN: 0098-3004, CCCC: 0098-3004/98/ (\$19.00).

Availability

SICI: 0098-3004(199812)24:10L:979:NSGW; 1-2

Electronic Journal Document Number: S0098-3004(98)00060-0.

Publication year

1998.

Language

EN.

Publication type

J Journal Paper.

Treatment codes

T Theoretical or Mathematical.

Abstract

Ground water mounding is the rise of the water table above its regional level in a local area of an aquifer in order to provide sufficient head to distribute the water supplied by a localized source to that area. The shape and height of the mound depend on many factors including recharge rate and distribution, geology, hydraulic conductivity, flow/head control locations, saturated thickness and regional flow in the aquifer in that area. In this work, an accurate and efficient numerical model for calculating ground water mounding was developed. Numerical calculations were done on a uniform rectangular grid, obtained by a **transformation** of the physical domain. Grid for computation were generated by a grid generation code, Eagle View, which is developed by the Mississippi State

University. Model predictions were verified with tests in a Hele-Shaw model for situations with and without a regional flow, with and without heterogeneity, and for two recharge rates. SAE#50 oil was used as the fluid in the Hele-Shaw. A peristaltic pump was used to supply the constant (and adjustable) recharge rate from the **reservoir** below the Hele-Shaw model. The results of experiments of estimating mounds and the numerical mounding model are in good agreement. However, mound height of the region below recharge of Hele-Shaw model can not be observed because the how of this region combines vertical flow from recharge and the rising of the free surface (horizontal flow). Hence, an emulated perched aquifer was used so that mound height of the recharge region can be observed. (19 refs).

Descriptors

geophysics-computing; groundwater; numerical-analysis.

Keywords

ground water mounding; Hele Shaw model; water table; aquifer; recharge rate; hydraulic conductivity; EagleView; peristaltic pump; emulated perched aquifer.

Classification codes

A9240K (Groundwater).
A0260 (Numerical approximation and analysis).
C7340 (Geophysics computing).

Copyright statement

Copyright 1999, IEE.

COPYRIGHT BY Inst. of Electrical Engineers, Stevenage, UK

<input type="button" value="save"/>	locally as: <input type="text" value="PDF document"/>	<input type="button" value="search strategy: do not include the search strategy"/>
<input type="button" value="previous documents"/>	<input type="button" value="next documents"/>	<input type="button" value="order"/>

[Top](#) - [News & FAQs](#) - [Dialog](#)

© 2005 Dialog